



Using Box Plots to compare heights of UK and Australian students

Task: Comparing the height of 14 year olds in the UK and Australia

The distribution of heights in a sample of one hundred 14 year old boys and girls from the United Kingdom are shown on the following parallel box and whisker plots.

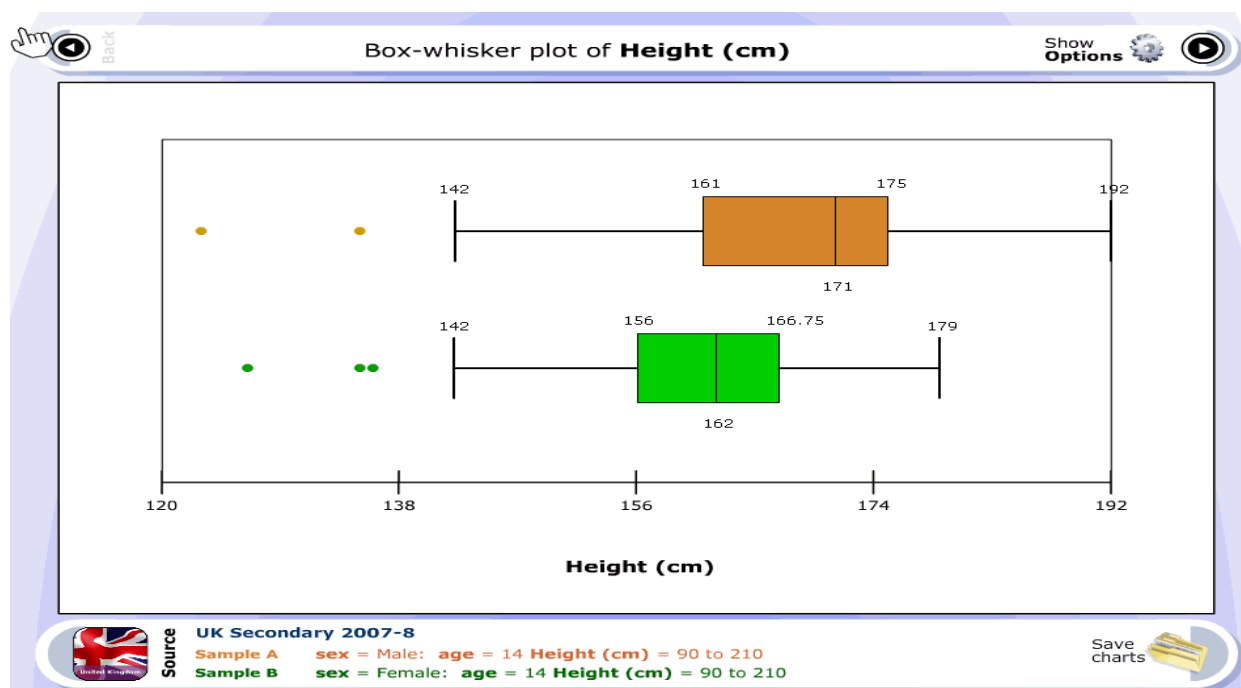


FIGURE 1: box and whisker plots using the UK CensusAtSchool Data Tool

1. Describe the important features of parallel box and whisker plots as if to a new student.
2. Consider the summary statistics taken from a random sample of students who completed the 2010 CensusAtSchool questionnaire. Construct parallel box and whisker plots of their heights. Make sure that you follow the correct setting out.

	min	Q1	Med	Q3	max
Males	142	160	172	175	184
females	151	159	163	168	177

FIGURE 2: Australian CensusAtSchool data of Year 9 students

3. Based on your results are there differences in the heights of 14 year olds in the UK and



Australia?

Extension: Make your own international comparison

- 4.** Use the UK CensusAtSchool data tool to make your own plots of their students' data by copying and pasting the following link:
<http://www.censusatschool.org.uk/get-data/datatool>
Note: if you will be comparing this sample with a sample from Australia, you will need to choose an attribute that is included in the Australian CensusAtSchool questionnaire.
- 5.** Take your own random sample of similar students from the 2010 Australian CensusAtSchool data. Use Excel to construct a similar chart or construct one by hand and explain how your sample compares to the UK students.